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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/555,707	07/25/2000	LIONEL TRANCHARD	11345.015001	9457

22511 7590 09/01/2005

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EXAMINER
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MOORTHY, ARAVIND K

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/555,707

Applicant(s)

TRANCHARD ET AL.

Examiner

Aravind K. Moorthy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This is in response to the amendment filed on 21 June 2005.
2. Claims 1-14 are pending in the application.
3. Claims 1-14 have been rejected.
4. Claims 15 and 16 have been cancelled.

### ***Response to Arguments***

5. Applicant's arguments filed 21 June 2005 have been fully considered but they are not persuasive.

On page 3, the applicant argues that Wasilewski does not disclose or suggest that the scrambling unit is physically separate from the multiplexer.

The examiner respectfully disagrees. It is clearly shown in figure 2c that multiplexer 162 and packet encryption processor 158 are two completely separate entities. The scrambling unit is physically separate from the multiplexer.

On page 5, the applicant argues that Sato does not even mention encrypting/scrambling data and thus does not disclose a scrambling unit.

The examiner respectfully disagrees. Sato was not used to teach encrypting/scrambling data and a scrambling unit. Sato was used to teach packet deletion means by transforming the packet ID of the packet to that of a null packet.

On page 5, the applicant argues that there is no motivation to combine the teachings of Wasilewski and Sato.

The examiner respectfully disagrees. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be

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established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it reduces the overflow of packets.

On page 6, the applicant argues that Woodhead fails to supply that which Wasilewski lacks.

The examiner respectfully disagrees. Woodhead was not used to teach that a scrambling unit is physically separate from a multiplexer. Wasilewski teaches that feature, as discussed above.

On pages 6 and 7, the applicant argues that Woodhead is completely silent with respect to scrambling/encrypting data, where the scrambling unit that scrambles/encrypts data is physically separate from a multiplexer that multiplexes the data.

The examiner respectfully disagrees. Woodhead was not used to teach that a scrambling unit is physically separate from a multiplexer. Wasilewski teaches that feature, as discussed above.

On page 7, the applicant argues that there is no motivation to combine the teachings of Wasilewski and Woodhead.

The examiner respectfully disagrees. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the

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references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it makes sure the buffer is sufficiently sized to prevent an overflow or underflow.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**6. Claims 1-5 and 9-14 rejected under 35 U.S.C. 102(e) as being anticipated by Wasilewski et al U.S. Patent No. 5,870,474.**

As to claim 1, Wasilewski et al discloses a digital audiovisual transmission system, comprising:

a multiplexer [column 12, lines 20-42]; and

a scrambling unit physically separate from the multiplexer [column 12, lines 20-42],

wherein the scrambling unit comprises:

an input for receiving an assembled transport packet stream from a the physically separate multiplexer [column 9, lines 59-67],

a scrambling device for scrambling the received transport stream according to a randomizing control word [column 7 line 64 to column 8 line 21], and

an output for sending the scrambled transport stream to a transmitter means for subsequent transmission, the scrambling of the transport packet stream by the scrambling unit being independently of the multiplexer operations [column 12, lines 20-42].

As to claim 2, Wasilewski et al discloses that the scrambling device is adapted to carry out scrambling on some or all of the payload of selected packets of the transport stream packet [column 7, lines 29-54].

As to claim 3, Wasilewski et al discloses that the scrambling unit further comprises a packet insertion means for inserting transport packet data in the transport stream [column 9, lines 13-23].

As to claim 4, Wasilewski et al discloses that the packet insertion means inserts a packet of data in the transport stream by detecting the presence of a null packet and replacing a null packet by the packet to be inserted [column 18, lines 54-67].

As to claim 5, Wasilewski et al discloses that the scrambling unit further comprises packet filter means for identifying and copying to a memory part or all of a predetermined transport packet [column 18, lines 1-23].

As to claim 9, Wasilewski et al discloses that the scrambling unit further comprises packet ID re-mapping means for changing the packet ID value assigned to a predetermined packet or set of packets [column 13 line 66 to column 14 line 23].

As to claim 10, Wasilewski et al discloses that the scrambling unit is part of a scrambling system [column 8, lines 8-47]. Wasilewski et al discloses that the scrambling system further comprises central control means for generating a control word sent to and received by the scrambling unit for scrambling the transport stream [column 8, lines 8-47].

As to claim 11, Wasilewski et al discloses that the scrambling system further comprises one or more access control systems connected to the central control means and adapted to receive a control word supplied by the central control means and to send back to the central control means an encrypted message containing the control word [column 8 line 61 to column 9 line 30].

As to claim 12, Wasilewski et al discloses that some or all of the data sent from the central control means to the scrambling unit is authenticated by the central control means by generation of a signature in accordance with a secret encryption key [column 10 line 59 to column 11 line 23].

As to claim 13, Wasilewski et al discloses that the scrambling system comprises a plurality of scrambling units and associated central control means associated with the generation of a single transport stream [column 8, lines 8-30].

As to claim 14, Wasilewski et al discloses that the scrambling unit is adapted to store its working configuration characteristics and/or the current control word value [column 9, lines 59-67].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**7. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski et al U.S. Patent No. 5,870,474 as applied to claim 1 above, and further in view of Sato et al U.S. Patent No. 5,566,174.**

As to claims 6 and 7, Wasilewski et al does not teach that the scrambling unit further comprises packet deletion means for deleting a predetermined packet or set of packets. Wasilewski et al does not teach that the packet deletion means deletes a packet by transforming the packet ID of the packet to that of a null packet.

Sato et al teaches packet deletion means by transforming the packet ID of the packet to that of a null packet [column 10, lines 31-41].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Wasilewski et al so that there would have been have been packet deletion means. The packets would have been deleted by transforming the packet ID of the packet to that of a null packet.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Wasilewski et al by the teaching of Sato et al because it reduces the overflow of packets.

**8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski et al U.S. Patent No. 5,870,474 as applied to claim 1 above, and further in view of Woodhead et al U.S. Patent No. 5,640,388.**

As to claim 8, Wasilewski et al does not teach that the scrambling unit further comprises packet counting means for counting the number of packets of a predetermined packet ID value in the received transport data stream.

Woodhead et al teaches packet counting means for counting the number of packets of a predetermined packet ID value in the received transport data stream [column 12 line 66 to column 13 line 10].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Wasilewski et al so that there would have been a counter for packet counting means for counting the number of packets of a predetermined packet ID value in the received transport data stream.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Wasilewski et al by the teaching of Woodhead et al because it makes sure the buffer is sufficiently sized to prevent an overflow or underflow [column 13, lines 11-23].

### ***Conclusion***

**9. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO


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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K. Moorthy whose telephone number is 571-272-3793. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aravind K Moorthy   
August 25, 2005

  
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